



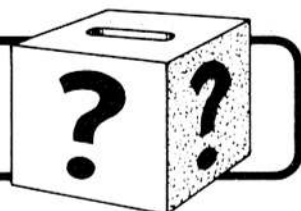
NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 5 - No. 12

June 20, 1974

QUESTION BOX



If you have questions on company policies, benefits, etc. or any other problems with which we might help, just let us know. Drop your inquiry to the Editor, Nuclear Division News. (Or telephone it in to your plant news representative . . . see page two). You may or may not sign your name. It will not be used in the paper.

Questions are referred to the proper authorities for accurate answers. Each query is given serious consideration for publication.

Answers may be given to employees personally if they so desire.

QUESTION: If at retirement a man elects the spouse option for his pension, how much does this reduce his pension? Does the spouse receive 50% of the whole amount or of the reduced amount at his death? Could you print these tables?

ANSWER: When the Surviving Spouse Option is elected at retirement, the employee's pension benefit is reduced by an actuarial factor which is based on the ages of the employee and the spouse. If the retiree should die before the spouse, then the spouse will receive 50% of the benefit the retiree was receiving at the time of death.

Due to the large number of combinations of ages, the printing of the table you requested would take more space than is available. We selected a few typical cases and show them below. The complete table is available from the retirement counselor in your Benefit Plans office upon your request.

Employee's Age		Spouse's Age	% of Normal Pension Employee Receives
Men	62	57	83.4
	62	60	85.4
	62	62	86.7
	65	62	83.0
	65	65	85.3
Women	62	62	93.8
	62	65	95.1
	62	67	95.8
	65	65	93.3
	65	67	94.3

QUESTION: It's time again to schedule vacations! Why is it the hourly employees are not permitted to fragment all of their vacation, even to one-half days in cases where they need to take care of personal business, doctors' or dentists' appointments, etc.?

It seems by not permitting us to do so is an act of discrimination.

ANSWER: There are limitations on the fragmenting of vacations for hourly employees in each of the Company-Union contracts because of the problems fragmentation presents. The main problem is that many hourly employees must be replaced if they are absent, thus presenting a serious scheduling problem. Other problems presented are the lack of flexibility in assignment and scheduling of hourly employees, keeping track of the vacation left, and the year-end accounting to insure everyone gets no more nor less than their entitlement. In addition, too much fragmentation by employees on any payroll interferes with a basic purpose of vacations — that is, to get away from the job and its routine for an extended period of time each year — and is discouraged.

QUESTION: On several occasions I have seen domestic animals in the plant, e.g., cats, dogs, etc. Someone told me the guards are instructed to kill these animals. Is this so? And if it is, isn't there a more humane way to remove them from the premises? A lot of employees would take them home with them.

ANSWER: Some installations use a dart gun loaded with tranquilizers for this purpose. The dazed animal is then taken to the Animal Shelter. Other installations merely call the dogcatcher and let him capture the animal. It would not be our policy to kill the animals unless very unusual circumstances made this necessary.

QUESTION: When will management do something to eliminate the feeling of criminality that employees have regarding forgotten badges? Employees have been made to feel like criminals if they fail to have their badge when they report to the guard portal, hence they waste from one-half hour to one and one-half hours of work time, not to mention the gasoline to go home for the forgotten badge.

NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through June 13

Paducah	118 Days	762,000 Man-Hours
ORGDP	99 Days	1,749,088 Man-Hours
ORNL	37 Days	650,234 Man-Hours
Y-12 Plant	366 Days	11,506,000 Man-Hours

Y-12 passes full year without lost-time mishap

For the second time in its 31-year history, the Y-12 Plant has gone a year without a lost-time accident!

The latest milestone was passed last week, as the Plant accumulated 366 days, for approximately 11,506,000 man-hours. Y-12 has maintained a frequency rate of less than one injury per million man-hours worked for the past 12 years (the national average for industry as a whole stands at around 10 lost-time injuries for every million man-hours worked).

Corporate record

The only other complete year Y-12 went without a lost-time accident was earned from October 20, 1971, through October 29, 1972, for a period of 13,778,000 man-hours, the longest period and best record Y-12 has set. (This accomplishment also sets a new record for the entire Union Carbide Corporation.)

Ridiculous - isn't it? We knock ourselves out to save energy inside the portal but feel impelled to waste it outside the portal.

ANSWER: A badge identification system has always been necessary to control admittance of persons entering Nuclear Division security areas. Recognizing that there will be forgotten badges, the control of admittance has been designed so that an individual forgetting his badge can be admitted on a temporary pass. However, an extra few minutes are required in each such instance for a guard to verify identification, a continued need for the individual to enter the area, and the necessary time to record a temporary pass. There is no requirement for an employee to return home for a forgotten badge.

QUESTION: If you are leaving the Company, voluntary resignation, is it possible to see the performance rating given you by your supervisors?

ANSWER: An employee should always feel free to discuss his performance rating with his supervisor. This is true of

(Continued on page 8)

On October 16, 1960, Y-12 went 311 days, for 10,300,000 man-hours. Thus, the latest accomplishment marks only the third time the Plant has passed the 10 million man-hour mark.

Since 1948, when safety records were begun for the Plant, Y-12 has passed the 1.5 million man-hour period for a total of 59 times!

'Individual effort'

Y-12 Plant Superintendent Jack M. Case stated last week, "While it is exciting and challenging to break records, our finest reward is a safe plant, an environment in which we can work in comfort without worrying about getting injured. It is only through individual effort that such records as Y-12 has made can be accomplished. It is indeed a pleasure to congratulate all employees who contribute to this effort. Let's keep our efforts in accident prevention foremost in our everyday schedules."

College grants made to area universities

Grants totaling \$30,000 have been made by Union Carbide Corporation to nine colleges and universities in Tennessee and Kentucky. The grants were announced by Roger F. Hibbs, President of Union Carbide Corporation's Nuclear Division.

Union Carbide Corporation operates three facilities in Oak Ridge and one in Paducah, Ky., for the U.S. Atomic Energy Commission, as well as commercial production plants in Columbia, London and Lawrenceburg, Tenn. In addition to these major locations, Union Carbide has three other small facilities in Tennessee - Linde Division plants in Knoxville and Memphis, and a Consumer Products plant in Memphis.

The grants have been made to enhance various educational programs at the colleges and universities involved.

Institutions receiving grants were Fisk University, Kentucky State College, Knoxville College, Murray State College, Paducah Community College, Tennessee State University, Tennessee Technological University, the University of Kentucky and The University of Tennessee.

Savings Plan one of the most popular of 'fringes'

Union Carbide began program before most firms considered it

(A booklet describing the Union Carbide Savings Plan will be mailed to homes of Nuclear Division employees within a few days.)

The Union Carbide Savings Plan is one of the most popular Company benefits, as witnessed by the high percentage of participants in this optional program. At present, some 91 percent of Nuclear Division employees participate in the plan.

The Savings Plan consists of two types of optional programs offered by the Company. One is the General Savings Fund, which has a payout with Company contributions every two years. The other is the Personal Investment Account, where all monies are normally held for the employee until retirement.

Plan is improved

The Savings Plan can trace its beginning back to 1928 - long before most firms ever considered such an idea. The Company offered the General Savings Fund portion of the plan on an irregular basis - 1928-1931, 1935-1938 - until it became an apparent permanent benefit in 1940. Since then, the General Savings Fund portion of the Savings Plan has operated on a continuous basis. In 1953, the long-term Personal Investment Account feature was added to the Plan. Other improvements were added last year.

Major improvements made in the plan in 1973 include the following: introduction of various options in connection with the Personal Investment Account, permitting a wider variety of investment opportunities; introduction of options in connection with payout of the Personal Investment Account at time of retirement; removal of the upper limit of \$83 in General Savings Fund deductions; introduction of an additional five percent supplemental deduction, without additional Company contribution, for the Personal Investment Account.

NUCLEAR DIVISION NEWS

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NUCLEAR DIVISION

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General savings fund

The General Savings Fund pays off at the end of June, every odd year. Last year, Nuclear Division employees at the four installations received some \$22.5 million in cash. The high rate of Company contribution has proven very appealing. This contribution ranges from 10 percent for employees with one to two years of service, to 20 percent for persons with two to three years of service, to 30 percent for persons with three or more years of service. Interest on both saving and Company contributions adds ever more.

The Personal Investment Account is intended as a long-term savings program for employees. It provides an employee the opportunity to develop a sizeable nest egg for retirement through employee contributions, Company contributions, plus interest and/or dividends. This plan is available to employees with at least three years of Company service. As in the General Savings Fund, the Company contributes 30 percent to an employee's basic deductions in the Personal Investment Account.

Investment options

The Personal Investment Account has four investment options, which include: United States Series "E" Savings Bonds; Union Carbide Corporation common stock; a Fixed Income Fund; and an Equity Investment Fund. Allocations for these options can be made in steps of 25 percent. Thus, an employee may decide to place one-fourth of his PIA deduction in each of these accounts, place half in one and half in another, place the entire deduction in one account, or any other type of arrangement so long as 25 percent increments are used.

It might be of interest to note that of the money presently invested in the Personal Investment Account by Nuclear Division employees, the preference is as follows: Fixed Income Fund, 44 percent; Union Carbide stock, 32 percent; Equity Investment Fund, 17 percent; and U.S. Savings Bonds, seven percent.

An employee is permitted a basic deduction of seven and one-half percent of his regular salary for placement in either the General Savings Fund or the Personal Investment Account. An employee can divide the money between the GSF and PIA in 25 percent steps and this division can be changed at any time by filling out a form. The Company will add 30 percent to the basic deduction.

Supplementary deduction

An employee who has subscribed to the full seven and one-half percent deduction also may invest an additional five percent of his salary in the Personal Investment Account only. A Company contribution is not added to the supplemental deduction.

To better explain some of the options available, let's create a fictional Nuclear Division employee named John Doe who has over three years of Company service and has a monthly income of \$800. His basic deduction for the Savings Plan is seven and one-half percent, or \$60. No matter which of the two programs he

PERSONAL INVESTMENT ACCOUNT — LONG TERM SAVINGS

Average Monthly Salary	Basic 7-1/2% Deduction	Company Contribution	10 Years	Account Value 20 Years	30 Years
\$ 600	\$ 45	\$13.50	\$ 9,504	\$26,527	\$ 58,764
800	60	18.00	12,672	35,369	78,352
1,000	75	22.50	15,840	44,211	97,940
1,200	90	27.00	19,008	53,053	117,528
1,600	120	36.00	25,344	70,738	156,704

Although it is impossible to predict interest rates for the future, the table above shows how a Personal Investment Account would grow at an interest rate of only six percent, through investing in U.S. Series "E" Savings Bonds, which might be considered the most conservative of the four options in the PIA. This table assumes a basic deduction only, plus a 30 percent Company contribution.

selects, John will receive 30 percent Company contributions, since he has over three years of Company service. He also is permitted to invest an additional five percent, or \$40, for which the Company does not add a contribution, and it can be deducted only for the Personal Investment Account.

Guaranteed returns

Let's look at some of John's choices, assuming that he wants the entire 12 and one-half percent, \$100, deducted each month for investments. John might decide to invest his total basic deduction, \$60, in the General Savings Fund. At the end of two years, the savings would equal \$1,440 in basic deductions and \$432 in Company contributions, for a total of \$1,872. Interest on both deductions and Company contributions, plus a possible share of the fund surplus, would add even more.

With all of his basic deduction allocated to the General Savings Fund, John would then have \$40 per month for the Personal Investment Account. Being a bit uncertain of his long-range investment goal and wanting to cover all possibilities, John might decide to allot \$10 per month for each of the PIA options. This would provide him the advantages of owning U.S. Savings Bonds, which pay a guaranteed six percent interest and can be sold at John's option for conversion into other PIA accounts; ownership of Union Carbide stock, which has made 228 consecutive dividend payments and can rise, or decline, in sales value; a Fixed Income Fund, in which both the principal and interest are guaranteed with a rather good interest rate despite investment market fluctuations; and an Equity Fund which can be expected to fluctuate to some extent with changing conditions in the stock market.

Several options

John could decide that he would prefer to see his long-range investment program grow a little more rapidly and place half of his basic deduction into the General Savings Fund and the other half, plus the supplemental, into the Personal Investment Account. Let's see how this will add up. He will be deducting \$30 per month for the General Savings Fund and \$30 (basic) plus \$9 (Company contribution) plus \$40 (supplemental) for a total of \$79 per month to the Personal Investment Account. If he wishes, he can almost double each of the PIA account deductions. At the end of two years, his General Savings Fund total would be about \$936 before interest.

Or perhaps John is one of those persons who wants to put the whole

bundle into long-term savings for retirement. Thus, he designates that the total basic deduction of \$60 per month, plus \$18 Company contributions, plus \$40 supplemental go into the Personal Investment Account. Placing \$118 a month in a long-term savings account, drawing interest compounded for 25 or 30 years, should enable John to accumulate a tidy sum to supplement his retirement income.

Retirement income

It should be noted that if John had been making \$1,200 per month, all of the examples in the above paragraph would be valid if the numbers were multiplied by one and one-half. If his salary had been \$1,600 per month, the numbers could be multiplied by two.

The Personal Investment Account can be especially useful in planning for a supplemental income during retirement years. In addition to the opportunity for accumulating a lump sum payable at retirement, an employee has the option of converting the payout to monthly payments for a specified term of years or even to monthly payments guaranteed for life.

What other firms have savings plans?

Among the ten companies in the Oak Ridge area with 1,000 or more employees, ALCOA, Bowaters, Rohm and Haas and Carbide are the only ones with Savings Plans. AEC, TVA, Fulton Sylphon, Arnold Research Organization, Magnavox, and American Enka do not have Savings Plans. Tennessee Eastman has a profit-sharing program rather than a Savings Plan. Of companies in the Paducah Area, Aircro, B.F. Goodrich and Westvaco have Savings Plans. Allied Chemical, GAF, General Tire, Modine, Pennwalt, Vanderbilt Chemical and Illinois Central do not have a Savings Plan. Among the major national laboratories, one other than Union Carbide, Lawrence Livermore, provides a savings program for its employees. Their program, however, does not have any company matching provisions.

SECOND IN SERIES

The above article is the second in a series of descriptions of Nuclear Division benefits. The third, on the Pension Plan, will be scheduled soon. The first in the series centered on Union Carbides Group Insurance Plan.

COMPANY Service

20 25 30

Y-12 PLANT 30 YEARS

Juanita Easley, production assay; Rufus F. Noah, area five maintenance; Mary H. Cunningham, engineering services; John S. Orr, process maintenance; George A. Cowan, guard department; Thelma W. Cole, production analysis; Doyle F. England, H-2 and F area shops; Margaret J. Pierce, casting department; and Lillian H. Higgins, Engineering Division.

20 YEARS

James T. Roberts, Kirk O. Pearson, William F. Wormsley, Keron D. Thompson, Billy D. Duncan, Joe Dick, Thomas W. Ledbetter, Golman Phillips, Clayton R. Olmstead, R. B. Patterson, David R. Heidle, George A. Burton Jr., Claude J. Tapscott Jr., James M. O'Keefe, Luther H. Finks, Dillard A. Davis, James T. Dobbs, Boyd T. Burrell and Warren Shadden.

ORGDP 30 YEARS

George Z. Hickey, fabrication shop department; Frank Franam Jr., administrative services; Johnnie M. Blanton,

maintenance automotive equipment department; Audie C. Snodgrass, stores department; and Paul T. Carroll, guard department.

25 YEARS

Elbert L. Jenkins.

20 YEARS

Lela Marie Butcher (May 29.)

ORNL

30 YEARS

Brabson C. Burrell, Health Physics; George E. Moore, Chemistry; LeRoy Smith, Finance and Materials; Hobert B. Bowen, Plant and Equipment; Horace M. Spoon, Laboratory Protection; Haskell Swearingin, Plant and Equipment; Jesse R. Webb and Waldo E. Cohn, Reactor; and Francis M. Scheitlin, Isotopes.

25 YEARS

Charles O. McCloud, Wallace C. Koehler, William W. Parkinson Jr., and Robert S. Crouse.

20 YEARS

Edward B. Cagle, John R. Jones Jr., Vaughan S. Throop, Gene C. Jenkins, Charles W. Leinart, Charles D. Griffies, Melvin C. Hill, William M. Sproule and Jeane L. Chamberlain.

Miss Davis, Hobbs, Holland promoted at Paducah Plant

Three promotions are announced in the Industrial Relations, Engineering and Cascade Operations Divisions at the Paducah Gaseous Diffusion Plant.

Anna Rose Davis has assumed the responsibility for the administration of benefit plans and insurance in the Industrial Relations Division.

A native of southern Illinois, Miss Davis graduated from Murphysboro Township High School and Draughton's Business College. She worked with the Woodall-Melton Insurance Company in Paducah, before joining Union Carbide in 1953, and has worked in Industrial Relations since that time.

J. Peck Hobbs has been named a process foreman in the Cascade Operations Division.

A native of Cunningham, Ky., Hobbs was employed at the Modine Manufacturing Company before joining Union Carbide in 1951 as one of the original trainee A's.

He lives in Cunningham with his wife, Ruby, a former employee of UCC, and his two sons, Gregory and Bradley.

James D. Holland has been named associate design engineer in the Engineering Division.

Born in Marshall County, Holland is a veteran of the summer student and co-op program of Union Carbide. He holds an associate degree from the Paducah Community College and an engineering degree from the University of Kentucky.

Holland and his wife, Carol, live in Marshall County.



Miss Davis Hobbs



Holland

PATENTS Granted

To William M. Ewing, Ji Young Chang, William Fulkerson, David L. McElroy and Samuel C. Weaver, ORNL, for "Method for Preparing Massive Nitrides."

To John A.D. Stockdale and Robert N. Compton, ORNL, for "Leak Detector."

To George I. Cathers, ORNL, and Calvin J. Shipman, ORNL retiree, for "Method for Removing Iodine from Nitric Acid."

Biology and I&C divisions announce recent promotions

Two ORNL divisions have announced the promotion of one employee each.



Mrs. Skeel

Anne L. Skeel has been promoted to supervising editor of the editorial office in the ORNL Biology Division.

Mrs. Skeel, a native of New York, attended Indiana University at Bloomington. She has lived at 108 Dewey Road in Oak Ridge since 1945. She came to work at ORNL in 1958.

Gerald Hamby has been promoted to maintenance foreman in the Instrumen-



G. Hamby

tation and Controls Division at Oak Ridge National Laboratory.

Hamby attended Cherokee County Schools in Murphy, N.C. He served in the U.S. Army before coming to work at ORNL in 1948. He completed the apprenticeship program and was an instrument technician prior to his recent promotion.

Hamby and his wife, Bobbie, live at 700 West Sixth Avenue, Lenoir City. They have a son, Gary.

Reactions between complex nuclei conference is held at Vanderbilt

Approximately 150 scientists from 15 foreign countries attended the International Conference on Reactions Between Complex Nuclei, which was held June 10-14, on the campus of Vanderbilt University, Nashville.

The conference was organized by Oak Ridge National Laboratory. Other sponsors include the International Union of Pure and Applied Physics, the Atomic Energy Commission, the National Science Foundation and Vanderbilt University.

Paul H. Stelson, director of the ORNL's Physics Division was conference chairman. Russell L. Robinson, also of ORNL, was conference secretary. Assisting in local arrangements for the organizing committee was Professor J. H. Hamilton of Vanderbilt University.

The conference dealt with all aspects of heavy-ion-induced reactions. Complex nuclei are considered to be nuclei of all atoms heavier than helium. The topics discussed ranged over all of the phenomena that occur when these pieces of nuclear matter collide. The gentler aspects of these collisions were covered under the subjects of Coulomb excitation and elastic scattering. More energetic reactions were discussed under topics of inelastic scattering, transfer reactions and compound nuclear reactions.

The use of heavy ion reactions to probe the behavior of nuclear matter under conditions of high stress was covered in sessions on high-spin states in nuclei and nuclear fission. Also discussed were energetic collisions which lead to

the creation of nuclear systems quite different from those found in nature.

A variation of this last subject was talks presented on the possibility of reactions fusing two large nuclei together to form exotic nuclei far heavier than have ever existed in the history of the universe. In all these discussions, the emphasis was on the new insights these reaction studies give into the behavior and properties of nuclear matter.

Abercrombie daughter awarded scholarship

Debbie Abercrombie has been selected as a "Wesleyan Scholar" and has been awarded a \$1,000 scholarship for the upcoming year at Tennessee Wesleyan College.



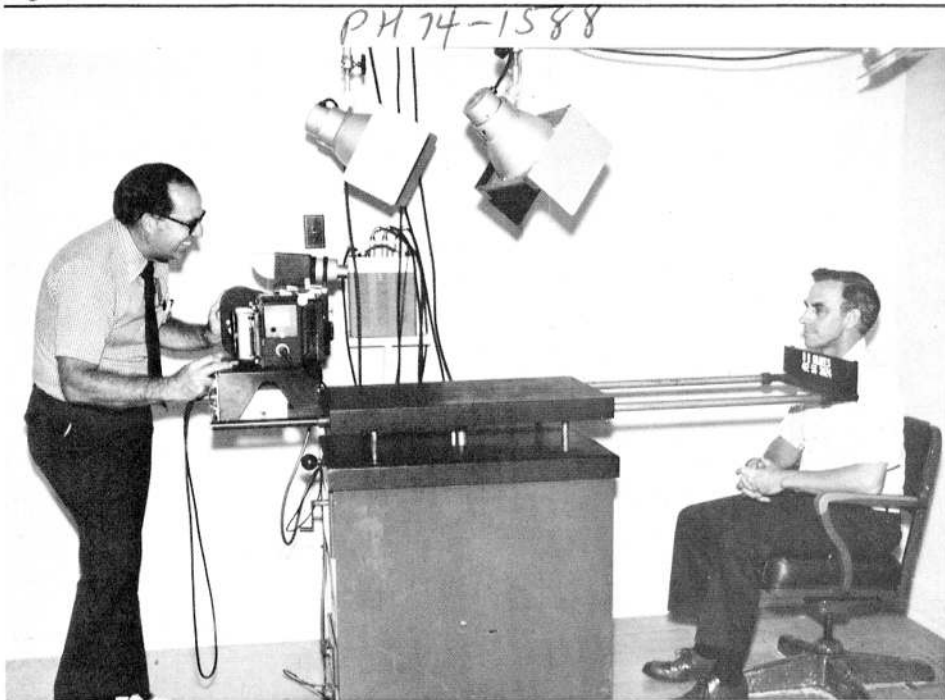
Debbie

Debbie, a recent graduate of Lenoir City High School, is the daughter of Mr. and Mrs. Clarence R. Abercrombie. Her father is in Y-12's Maintenance Division, and her mother works in accounts payable.

Selection for the scholarship is based on superior scholastic ability of promise for future usefulness, leadership and citizenship.

Next Issue

The next issue will be dated July 5.
The deadline is June 26.



PHOTOGRAPHER GETS PHOTOGRAPHED — Howard Phillips, ORGDP photographic section, takes Don H. Graves' picture in the plant's rephotographing program. ORGDP is essentially through with their rephotographing.



ORNL EMPLOYEES — This is a familiar scene at ORNL as employees take photographs for new badge pictures. From left are Charles Marlowe, Badge and Pass Office; Tom Steele, Plant and Equipment; Margaret Castleberry, Laboratory Protection Division; Leila Heidel, Director's Division; Cheryl Childress and Gene T. Conner, Laboratory Protection Division; John Loy, Plant and Equipment Division and Carmen Trammell, Information Division.

Uniform badge rephotographing on schedule in all four plants

On schedule, and in many cases ahead of the game, is the word on the re-badging process in the four Nuclear Division Plants.

The Oak Ridge Gaseous Diffusion Plant reports completion of its photo-

making, with the exception of a few vacationers and people on sick leave. Y-12 Plant is about half through employment rolls; Oak Ridge National Laboratory lacks only a few hundred employees; and the Paducah Gaseous Diffusion Plant reports about a third of employees are re-badged.

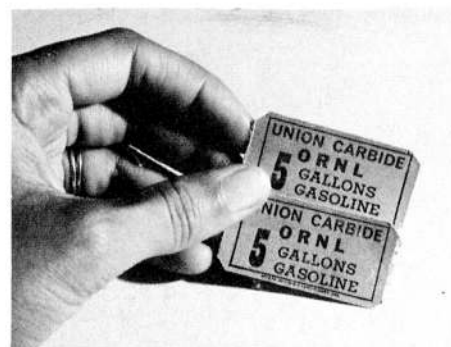
The move is to make all badges uniform in the four plants. All will be blue, and will bear the Social Security number of the employee in place of a badge number.

The transition is set for the week between Christmas and New Years of this year.

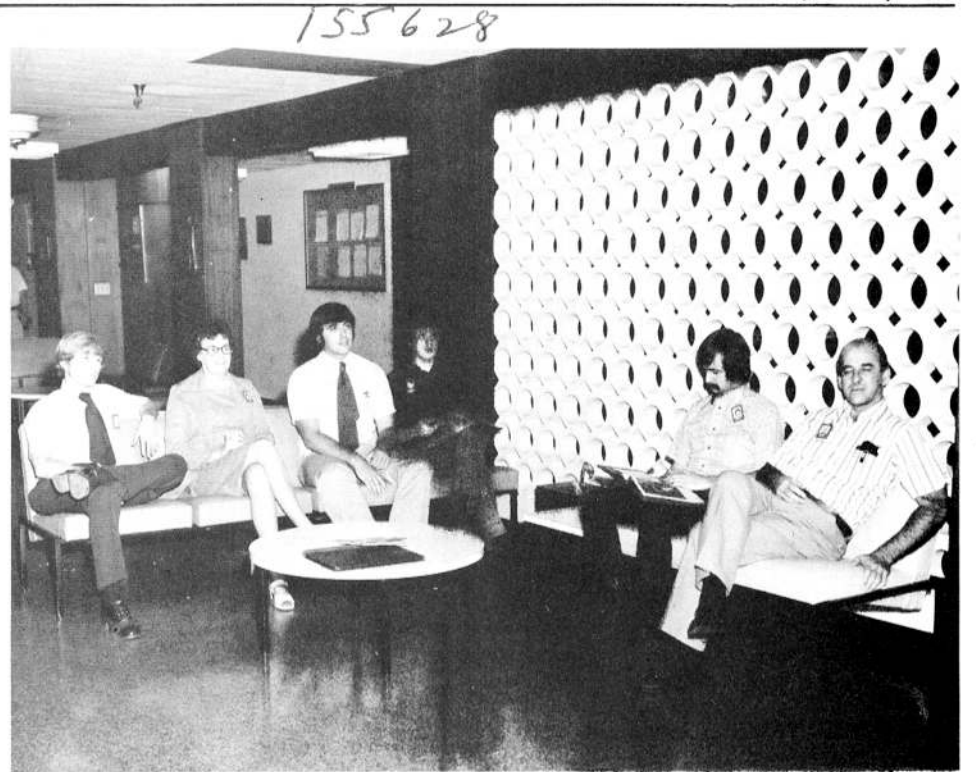
THE LAST WORD

The brain is a wonderful organ; it starts working the moment you get up in the morning and does not stop until you get into the office.

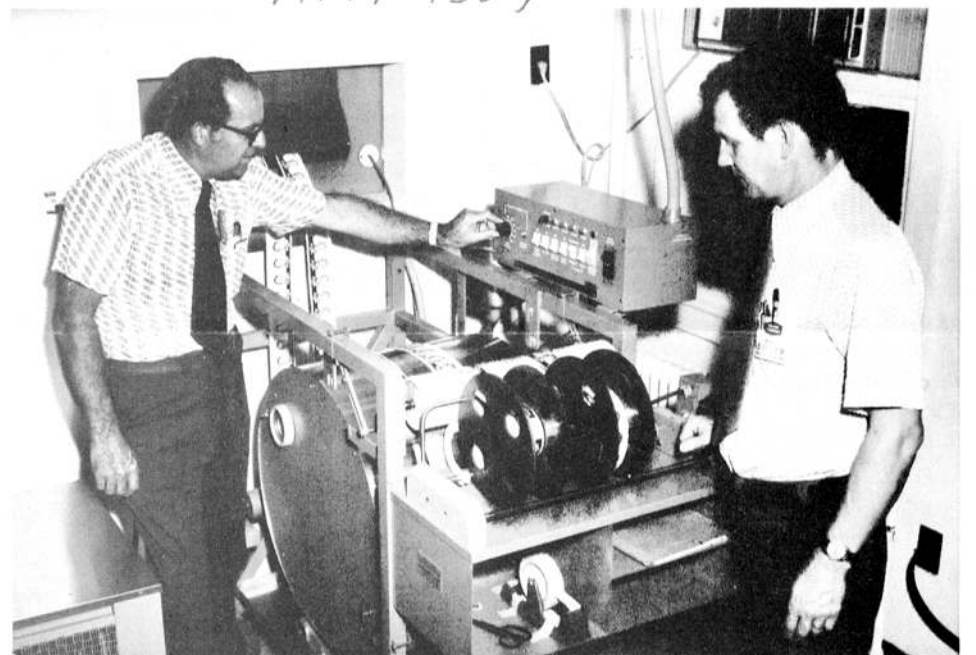
Idealism increases in direct proportion to one's distance from the problem.



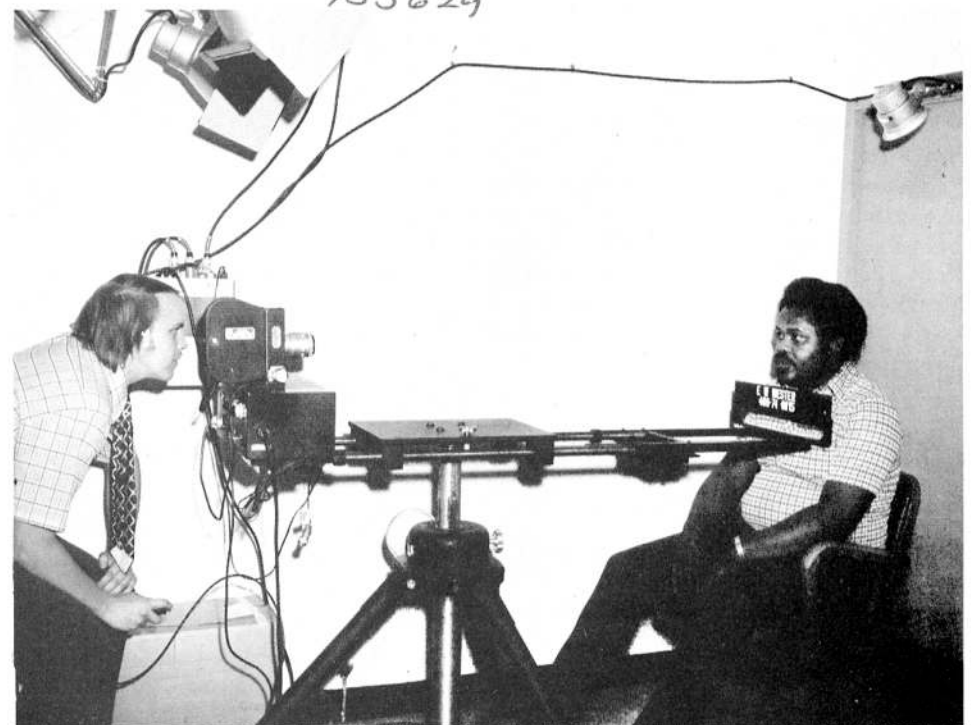
GAS RATIONING — Stamps are required at service stations in The Nuclear Division for the "purchase" of gasoline. Typical ration stamps are seen above.



AWAITING REBADGING — These Y-12ers await their turn before the cameras in the Nuclear Division's rebadging program. Plans are to have all four plants' personnel rephotographed by the end of the year. From left, are Eugene N. Dixon, Addie Lynch, Larry DeRoos, Lanny Frazier, Ben Witt and Henry East.



PROCESSING FILM — All the film from the four Nuclear Division plants are processed at the Oak Ridge Gaseous Diffusion Plant. Here, Howard Phillips, left, and James Patterson apply the pictures to the dryer. As many as 30 prints of each badge picture are often required.



Y-12ER IS REBADGED — Edward W. Wester, right, is rephotographed with a Social Security number replacing his old badge number. Jeffrey Derwort, security, operates the camera. Y-12 reports that it is about mid-way through its rebadging efforts.

Nuclear Division Deaths

Howard W. Savage, Y-12's facilities engineering department, died June 2 at his Oak Ridge home.

A native of Oklahoma City, Mr. Savage joined Union Carbide at the Oak Ridge Gaseous Diffusion Plant. He transferred to Paducah in 1951, and in 1961 returned to the Oak Ridge area in the Y-12 Plant. He was recently named to the Oak Ridge Planning Commission.



Mr. Savage

Survivors include his wife, Muriel Moore Savage, 151 South Purdue Avenue, Oak Ridge; a daughter, Lois J. Lindsey; two sons, Joe C. and Richard M. Savage; six grandchildren and two sisters.

Funeral services were held at the Martin Funeral Home Chapel with the Rev. C. Noel White officiating. Burial followed in the Oak Ridge Memorial Park.

FORMER ORNLER DIES

James A. Burchfield, formerly of the Plant and Equipment Division at ORNL, died May 26 at Sweetwater Hospital. Mr. Burchfield was a rigger and iron worker for over 20 years. The Burchfield home is at Route 1, Sweetwater.

Summer researchers announced by AEC

Appointment of 113 college students to conduct summer research at U.S. Atomic Energy Commission laboratories in Tennessee, South Carolina, and Puerto Rico, has been announced by the AEC.

Science and engineering majors from 80 institutions in 35 states, Puerto Rico, and the District of Columbia will participate in the 1974 undergraduate research training program, which is administered for the AEC by Oak Ridge Associated Universities. ORAU is a non-profit corporation of 42 Southern universities and colleges.

The program provides opportunities for research in the physical, biological, and environmental sciences, engineering, and mathematics. Students work on problems in their areas of interest under senior staff members at the laboratories.

The program's purpose is to encourage the students to pursue graduate study and career opportunities in the nuclear field. The students gain experience in planning and conducting research in the advanced and often unique facilities at the large Federal laboratories.

The trainees are eligible for appointment after their junior year. They receive a weekly stipend and travel allowance.

This summer, 97 students will work at AEC laboratories in Oak Ridge. They include assignments to divisions and programs of ORAU; research divisions and programs at Union Carbide, Nuclear Division; The University of Tennessee-AEC Comparative Animal Research Laboratory; and the Atmospheric Turbulence and Diffusion Laboratory.

In addition, 11 trainees will be at the AEC's Savannah River Laboratory in Aiken, S.C., and five at the AEC's Puerto Rico Nuclear Center.

James E. Swander, a development engineer in the Instrumentation and Controls Division at ORNL, died in the Oak Ridge Hospital June 6.



Mr. Swander

The Swander home is at 3412 Sprucewood Road, Knoxville.

Mr. Swander is survived by his wife, Karen Elizabeth Swander; and his parents, Mr. and Mrs. Elvin Swander of Struthers, Ohio.

Funeral services were held at Weaver Funeral Home, and burial followed in Oconomowoc, Wisc.

Charles F. Phillips, Y-12's receiving and shipping department, died June 11 at the Oak Ridge Hospital.

A native of Burlington, N.C., Mr. Phillips first came to Y-12 in 1944, and returned in 1953. He was a veteran of the U.S. Army, serving from 1939 until 1944.

The Phillips home is at Route 5, Pine Circle, Clinton. He is survived by his wife Mrs. Lucy Phillips; three daughters, Shirley Busby, Iva June Hampton and Janet Phillips; three sons, Charles F. Jr., Ronnie and Donnie Phillips; three sisters; a brother; and two grandsons.



Mr. Phillips

Funeral services were held at the Moran Baptist Church, with the Rev. E. J. Brown officiating. Burial followed in Anderson Memorial Gardens.

JULY 4TH HOLIDAY

July 4 is an official holiday, as the nation prepares to celebrate its 198th birthday.

No employee will be required to work unless his presence is required by continuous operation or security of the plants.

Osborne, Vest and Haynes upped in recent ORGDP promotions

Fabrication and Maintenance and the Barrier Manufacturing Divisions at the Oak Ridge Gaseous Diffusion Plant have announced recent promotions. Robert C. Osborne has been named a barrier foreman and William Vest Jr. and Charles H. Haynes have been promoted to maintenance foremen.

Osborne, a native of Jonesville, Va., attended The University of Tennessee, and joined Union Carbide at ORNL in 1952. He transferred to ORGDP in March, 1973.

He and Mrs. Osborne, the former Nila McConnell, live at Route 1, Clinton. They have four children, Carol Smith, who teaches in Alaska; Linda Nelson, also a school teacher in Georgia; Bobby, at home; and J.T., a student at Middle Tennessee State University.

Vest was born in Watauga, Tenn., and is a veteran of the U.S. Army, serving in



Osborne

Vest



Haynes

Private sector now out-numbers workers in government force

Data collected from 60 government-owned and 740 privately-owned establishments indicate that about 170,900 people were employed in the atomic energy field as of July 31, 1973. The results are from a recent Bureau of Labor Statistics survey conducted for the Atomic Energy Commission.

Employment in the private sector (85,800) exceeded that of government-owned facilities (85,100) for the first time.

Atomic energy related employment by selected segments includes: 31,600 involved with weapons development and production; 26,900 with reactor and reactor component design and manufacturing; 21,400 with design and engineering of nuclear facilities; and 91,000 involved with all other segments of atomic energy.

The atomic energy field consists of a highly skilled and research oriented work force, according to the survey. More than 45 percent of all workers were scientists, engineers and technicians. Engineers were the largest group (33,000), followed by technicians (31,800 including nuclear reactor operators), and scientists (13,600). Other employees totaled 92,500.

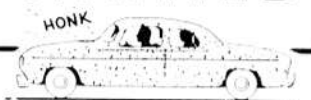
World War II and in Korea. He has been at ORGDP 29 years.

Mrs. Vest is the former Mary Cole Monday, and works in Central Payroll. They live at 203 Manchester Road, Kingston. They have a son, Sammy, in the electrical department at ORGDP; and a daughter, Dawn, a student at MTSU.

Haynes was born in Oak Ridge and attended Freed-Hardeman College. He was a traffic clerk with Tennessee Eastman Company, Kingsport, before joining Union Carbide three and one-half years ago.

Mrs. Haynes is the former Peggy Ann Jessee, and they live at Route 5, Clinton. They have a small daughter, Nikki.

WANTED



Y-12 PLANT

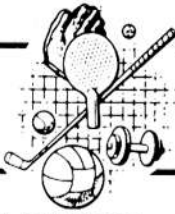
RIDE or will join car pool from Sutherland Avenue, Bearden section, Knoxville, to Central Portal, straight day. Linda Dockery, plant phone 3-7362, home phone Knoxville 584-7108.

PH 74-1577



PRIDE RECIPIENTS — Oak Ridge Gaseous Diffusion Plant Spring Clean-up honor recipients took plaques back to their departments recently. There were 40 superior awards, 32 awards of merit and seven letters of recognition. Herb E. Trammell, kneeling at left, and John M. Kennerly, right, were general chairman and coordinator for the plant efforts. The theme was PRIDE for the Spring efforts.

RECREATIONOTES



Jack Spurling fires best in Ft. Benning 'shoot-out'

R.J. "Jack" Spurling, Y-12 electrical and electronics department, recently showed his brass down at Ft. Benning, Ga. He bested the field of 500 National Guardsmen, taking the First Army high power rifle crown, slamming a 10-match aggregate of 1782-50X into his targets.



Spurling

The 20-year veteran led Guardgunners in a clean sweep of the three top spots with his "big bore" rifle. The six-day area championship was hosted by the U.S. Army Infantry Center, and included 532 shooters from National Guard units, Army Reserves and active Army squads.

Spurling, a Master Distinguished Rifleman, a second time winner of the large area matches, gave notice of his championship intentions with the firing of his first round, an M16 100-yard sustained fire event. He posted a clean score, placing all 20 of his hits in the bullseye for a 100-12X, only to lose the decision to another rifleman, who posted a similar score.

SOCCER PLAY

Any Union Carbide employee wishing to participate in soccer is invited to meet at the Oak Ridge High School athletic field Sunday mornings at 9:30. Foreign visitors and graduate students are especially welcomed.

SKEET LEAGUE

Y-12ers swept the Skeet tournament for May, taking all three first place scorings. Firing high were R. Williams, 48.880; Perry Bullard, 48.6; and Carl Brewster, 48.179.

GOLF TOURNAMENT

ORGDP golfers, attention! The Whittle Springs tournament set for June 29 will see its first tee-off at 6:43 a.m. The other two courses for Y-12ers and ORNL's will have their customary 7 a.m. tee-offs.

SOFTBALL LEAGUES

The Computes still maintain a perfect record in the Nuclear League, thanks to sterling play for nine games. The Snakes have made it almost as far in the Atomic League.

League standings follow:

NUCLEAR LEAGUE

Team	W	L
Computes	9	0
Over-the-hill Gang	7	1
Rats	6	1
Raiders III	4	1
The Losers	4	1
Bio Rejects	4	3
Bombers	4	3
Hornets	4	4
Al's Pals	3	4
Avengers	3	4
Arties Army	3	5
Yellow Jackets (dropped)		

ATOMIC LEAGUE

Team	W	L
Snakes	8	0
Streakers	5	1
Supersonics	6	3
Red Barons	6	3
Ecology	6	3
Gashouse Gang	6	4
Y-12 Sox No. 2	2	6
Y-12 Sox No. 1 (dropped)		

FIRES HOLE-IN-ONE

Norman Lazar, ORNL's Thermonuclear Division, chalked up a hole-in-one at the Oak Ridge Country Club recently. Scoring an ace on the 15th hole, he used a three wood on the 170-yard par three hole. His wife, Katie, was witness for the big "first" event.

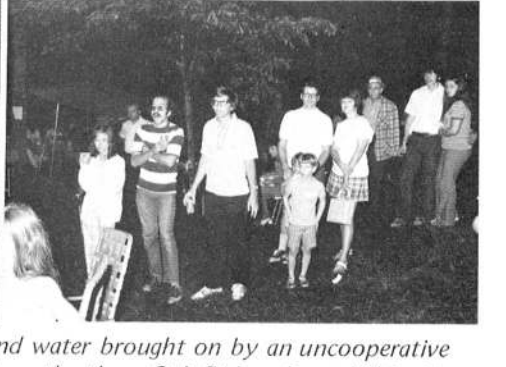
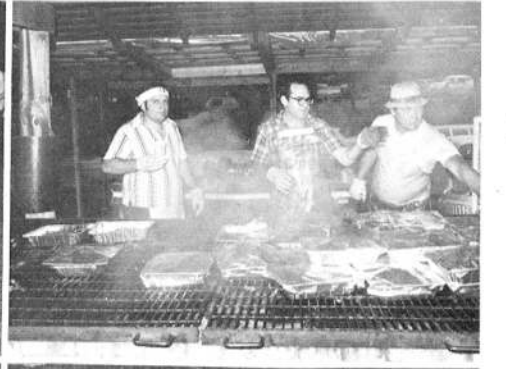
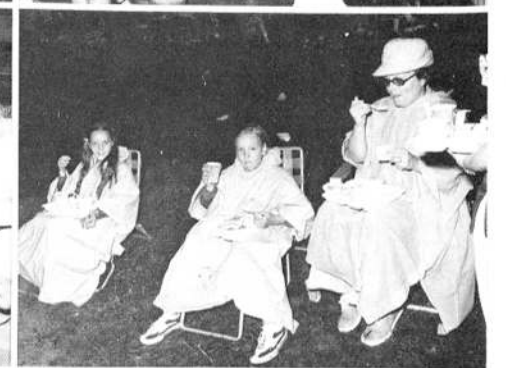
ENGINEERING PICNIC

Despite a non-cooperative attitude from the weatherman, the Engineering Division picnic was a great success.

Held at the Clark Center Recreation Park June 1, the annual event drew engineering personnel from the three Oak Ridge plants and their families. They enjoyed all the usual festivities, including a magic act and the usual fine food.

THE LAST WORD

If you worry about what people think of you, it means that you have more confidence in their opinions than you have in your own.



Tee-Off Time Application for June 29

(Check Appropriate Plant)

- ☐ ORGDP - WHITTLE SPRINGS
☐ Y-12 - DEAD HORSE LAKE
☐ ORNL - CEDAR HILLS

Check

LEADER

Phone

Bldg.

Time Preferred

COMPLETE AND RETURN TO YOUR RECREATION OFFICE

Entries must be received prior to drawing on June 26, 2 p.m.

ORGDP-Building K1001-C-Wing-MS 122

ORNL/Y-12-Building 9711-5

Tee-off times for all tournaments will be drawn on Wednesdays prior to each Saturday's tournament. Golfers are responsible for reserving their own carts by contacting the pro shop following drawing for tee-off times.

ENGINEERING PICNIC - Amid mud and water brought on by an uncooperative weatherman, the Engineering Division, from the three Oak Ridge plants, held a big annual picnic. The affair held at Clark Center Recreation Park, brought out many engineers, support folk and their families.

Rocky mountain spotted fever

(Editor's Note: Dr. Lincoln alternates his regular column with "The Medicine Chest," where he answers questions from employees concerning their health in general. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

The two recent deaths from Rocky Mountain spotted fever in this area have caused anxiety among hikers, campers and people who enjoy the outdoors. This spring has seen a heavy infestation of ticks, and anyone who has spent time in the woods has picked many of them off their clothing or bodies. Searching for ticks in dogs that run in wooded areas has become almost a daily chore.



Rocky Mountain spotted fever is a poor name since this disease occurs primarily in the south-Atlantic and south-central states and is now relatively rare in the western mountain states. Virginia and North Carolina have about 40 percent of the reported cases while the Rocky Mountain states have less than 2 percent. The reported incidence in the south, 1 per 100,000 population per year, is probably considerably less than the actual incidence due to the lack of an adequate diagnosis in those receiving early antibiotic treatment.

Begins with tick bite

Approximately 80 percent of cases will give a history of a tick bite from 3 to 12 days before the onset of symptoms. A short incubation period usually means a more serious infection. In the typical case, the onset is abrupt with a splitting headache, shaking chills, severe aching in the back and leg muscles, nausea and vomiting and a fever which may reach 103 to 104 degrees in the first two days. The onset is not significantly different from a fairly severe influenza-like illness. Sometimes muscles in the legs, back and abdomen are actually tender when squeezed. In children the onset may be mild making the diagnosis extremely difficult. A pink macular rash, somewhat like measles, usually appears on the second to sixth day of fever. Unlike the measles rash which usually begins on the face, the spotted fever rash appears first on the wrists, ankles, palms, soles and forearms and later spreads to the buttocks, trunk and face. By about the fourth day it may become hemorrhagic.

Treatment with tetracycline or chloramphenicol is highly effective if begun early enough. The ratio of fatalities to cases in the 32 deaths reported in 1970-71 was 12.7 percent for persons 30 years and over, and only 5.2 percent for persons under 30 years.

Remove with care

Removal of a tick as soon as possible is important because apparently the longer an infected tick feeds the greater the risk of infection. Ticks should be removed by tweezers or a piece of paper since the feces from an infected tick who has had

at least a partial meal may be infective by direct contact with the skin.

There is no way to reduce the population of infected ticks except by insecticide spraying, which is not practical. Infected ticks pass the infection to their offspring so it does not die out naturally.

Vaccine available

A vaccine is available but is not very effective in preventing infection. Persons who have received a complete course of the vaccine (three injections at intervals of 7-10 days) in the Spring before the tick season, usually have a less severe infection if the disease does occur. The vaccine is of no value in treating an infection. Unpleasant side effects such as a sore arm at the site of injection and fever are common.

Spotted fever is becoming more common because more people live in suburbs where trees and undergrowth are more common. The great increase in camping and hiking as well as the great numbers of pets all contribute to the increased frequency of the disease. In a survey done in Virginia the most common tick contact occurred near a young person's suburban or rural home.

Spotted fever is a disease to respect but not fear. Common sense in deticking and seeking prompt diagnosis and treatment of summer fevers is usually all that is necessary.

Caused by rickettsiae

There are a battery of laboratory tests which help in confirming the diagnosis, but unfortunately they don't become positive early enough during the course of the disease to be helpful in deciding treatment.

The disease is caused by rickettsiae microorganisms intermediate between viruses and bacteria - which multiply only in certain cells of susceptible species. Rocky Mountain spotted fever is caused by *Rickettsia rickettsii* and is transmitted to man by ticks. The rickettsiae infect about one to five percent of the ticks in areas reporting human infections. In the southeast the most common tick which becomes infected is the *Dermacentor variabilis*, the American dog tick. In the Rocky Mountain areas the *Dermacentor andersoni* tick is most common and is occasionally found in Tennessee. The Lone-Star tick, *Amblyomma americanum* and the rabbit tick, *Jaemaphysalis leporispalustris*, can also carry the infection.

Tick's life cycle

The life cycle of the tick is complicated but explains the seasonal distribution of human infections. The immature stages are parasites on mice, rats, rabbits, squirrels and cats. The adult is found on dogs, cattle, horses, hogs, sheep, foxes, skunks, deer and almost any other warm-blooded larger mammal. The adult tick comes out

ORNL interviewer post goes to Jane Patterson

1952-54



Jane L. Patterson

The promotion of Jane L. Patterson to employment interviewer in ORNL's Personnel Division was announced recently by James A. Barker, director. Mrs. Patterson will be responsible for recruiting and placing employees in the administrative support occupations at ORNL. She will also coordinate the new job opportunity listing program for employees in these occupations.

Mrs. Patterson is a graduate of Oak Ridge High School and Knoxville Business College. She attended Mississippi State University and The University of Tennessee.

In 1960, Mrs. Patterson came to work at ORNL as a secretary in the Neutron Physics Division, where she remained until her promotion. Mrs. Patterson is a member of the National Secretaries Association. She earned her certified professional secretary rating in 1971.

Mrs. Patterson's husband, Harrel E., is employed at the Y-12 Plant. They and their daughter, Lauren, live at 372 East Drive, Oak Ridge.

THE LAST WORD

Why is it that when a woman tells her doctor she is all tired out, the first thing he does is look at her tongue.

Some men fall in love with a dimple and make the mistake of marrying the whole girl.

of hibernation in March and climbs to the tips of low bushes and grasses. When an animal or man brushes by, the tick grabs on and finds a suitable spot and inserts its mouth parts for a blood meal which takes about a week, after which it drops off. Mating takes place during the ride also. Females lay 500 to 700 eggs about seven days later. After another 35 days the eggs hatch and larva attach themselves to rodents where they feed and develop into a nymph stage. They then crawl into hiding until the following spring when they again attach to rodents and feed for about seven days when they shed their skin and emerge as adults. They then don't eat for seven to nine weeks. Because of this cycle, adults are especially active from March to June and decline until activity ceases in August or September. Most cases of spotted fever occur between April and early August.

WANTED



ORGDP

CAR POOL members or two rides from Kingston Pike - Concord area to Portal 2, 7:45 a.m. - 4:15 p.m. shift. Norma Beeler, home phone 693-0228; or Betty Lumpkin, 966-9467; both on plant phone 3-3827.

RIDE or will join car pool from Kreis Circle, Norwood section of Oliver Springs, to Portal 7, straight day. Gene Epps, plant phone 3-3124, home phone Oliver Springs 435-7067.

RIDE from Landoak Lane, Farragut (across from Lovell Heights Shopping Center) to K-1001, 7:45 a.m. - 4:15 p.m. E. H. Kelley, plant phone 3-3258, home phone Knoxville 693-3139.

ORNL

JOIN CAR POOL from Garden Apartments, Virginia Road area, Oak Ridge, to East or South Portal, 8 or 8:15 a.m. shift. Vinod K. Sikka, home phone, Oak Ridge 483-3912, or plant phone 3-6038.

JOIN CAR POOL from Pleasant Ridge, West Norwood area, Knoxville to East Portal, after July 1. Ellen Berrier, Knoxville 546-7368 (after 5:30 p.m.).

RIDERS from Solway Community to East Portal, 8 or 8:15 a.m. shift. William Terry, plant phone 3-6775, or Oak Ridge 482-3147.

RIDE or JOIN CAR POOL from Sweetwater to Building 7000 area, 8 a.m. shift. Hugh Nichols, plant phone 3-6578, home phone, Sweetwater, 337-6479.

Medved daughter is honored at banquet

Denise Medved was recently honored at The University of Tennessee College of Communications banquet. She was named the outstanding senior woman by the American Association of University Women and was initiated into Kappa Tau Alpha, the highest scholastic honorary society in Communications. She was recognized at the banquet as one of 35 students in the United States selected for the Lewis Kleid collegiate scholarship. Miss Medved recently spent a week in Chicago at the Direct Mail Marketing Institute as part of that award.



Miss Medved

She will graduate in August, and is also a member of Phi Kappa Phi honorary society, Alpha Delta Sigma professional fraternity, a UT singer and a Mortar Board senior citation recipient, which is the highest honor society for college women.

She is the daughter of Martin Medved, Engineering Division, Y-12.

PATENTS

Granted

To Charles D. Scott, ORNL, for "Rotor for Fluorometric Measurements in Fast Analyzer of Rotary."



SMOKEGARD — Robert L. Atchley, ORNL's Fire and Guard Department, demonstrates a new fire detection device to Joyce Y. Foster, Personnel Division. The device is designed to sense fire well in advance of either heat or heavy smoke by detecting invisible products of combustion. The display was set up in recognition of Spring Cleanup Week. The general theme was "clean up time for fire prevention."

QUESTION BOX



(Continued from page 1)

an employee actively on the payroll or one who has voluntarily submitted his resignation. However, as stated in response to a somewhat similar question in our April 5, 1973, issue of the **Nuclear Division News**, Union Carbide's policy does not permit a former employee to review his personnel record. We do regularly consider requests from ex-employees for information from these personnel folders where there is an obvious need for it. Examples include copies of birth certificates, certification of skills, etc.

TABLE TENNIS

In this country the United States Table Tennis Association is the final word on ranking table tennis players. Out of the 2,100 ranked players in the country, the Oak Ridge area is represented by seven people with two of the Nuclear Division plants represented. Joe Ching, ORNL, is 115! Maurice Cohen, ORNL, 1295; Loyd Wyatt, Y-12, 1337; Charles Clifford, ORNL, 1506; Peter Fu, ORNL, 1609; Gerald Goldstein, ORNL, 1647; Janice Longstreth, ORNL, 1787.

These ratings are not given, they are earned by tournament play and months of practice.

Nuclear Division table tennis enthusiasts play every Monday night at 7 at the Norwood Junior High gym in Oliver Springs; and informal play, along with badminton, takes place at Highland View School gym at 7, each Thursday night.

GOLF LEAGUES

The Stafford-Madewell duo stands atop the South Hills Golf League, barely ahead of Wright-Bryant, Burrus-McGinnis and Cozart-Graham.

The Copeland-Boatwright team is still tops in the Southwest Point League, a hair's-breadth in front of Strunk-Duff and Stanton-Chapman.

Bill Rowland and Gary Lard lead the J Shift league, a step ahead of Earl Smith and Avis Collins.

Calendar of EVENTS

TECHNICAL

June 25

Health Physics Division Seminar: "Nonadiabatic Spin Transitions in Atomic Metastable Hydrogen," Ralph D. Hight, Montana State University. East Auditorium, Building 4500N, 1 p.m.

Solar Energy Series: "Solar Heating and Cooling of Buildings," Dan S. Ward, Colorado State University. Central Auditorium, Building 4500N, 11 a.m.

June 26

Biology Division Technical Seminar: "Electron Spin Resonance and Its Application to Biological Systems," Ronald Rahn, ORNL. Tower I Conference Room, Building 9207, Y-12 Plant, 3 p.m.

June 27

Reactor Division Seminar: "The U.S. CTR Effort: A Program in Transition from Physics to Engineering," P. N. Haubenreich. Building 9204-1, Y-12 Plant, Large Conference Room, 3 p.m.

June 28

All-Laboratory Colloquium: "Laser Frequencies and Wavelengths," R. D. Deslattes, National Bureau of Standards. East Auditorium, Building 4500N, 2 p.m.

COMMUNITY

June 21-22

Oak Ridge Playhouse presents: "Last of the Red Hot Lovers." Playhouse, 8:20 p.m. Admission: \$2.50; \$1.25 students (Friday only).

June 29-July 28

The Art Center presents: The 1974 Annual Open Show.

THE LAST WORD

Remember, your weight results not from what you eat and drink between Christmas and New Year's, but from what you eat and drink between New Year's and Christmas.

Division Retirees



Lester

Powell



Raper

Thomas R. Lester, utilities administration, retired from the Y-12 Plant at the end of May. A native of Briceville, he joined Union Carbide in 1952. A veteran of the U. S. Army, he lives at 711 High Street, Lake City.

Clifford A. Powell, chemical operations department head at the Paducah Plant, retired at the end of last month. A native of Pennsylvania, Powell came to work at ORGDP in 1944 and transferred to Paducah in 1951. He holds a B.S. degree from Penn State University.

He and his wife, Julia, plan their retirement in Brunswick, Ga.

William A. Raper, general maintenance department in Fabrication and Maintenance at the Oak Ridge Gaseous Diffusion Plant, will retire at the end of June. He joined Union Carbide August 25, 1944, and lives at 10908 Thornton Drive, Concord.

THE LAST WORD

No matter how busy a man is, he's never too busy to stop and talk about how busy he is.

HIGH POWER RIFLE LEAGUE

The fourth match of the All Carbide High Power Rifle League was won by Y-12er Jack Spurling, with a 484 out of a possible 500. Y-12ers Jack Huff and Bill Galyon were second and third, with 479 and 466.

THE LAST WORD

The difference between a tax collector and a taxidermist is that the taxidermist at least leaves the hide.



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NUCLEAR DIVISION

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